2. *Agitation and Epilepsy.*—This article is the account of a case of epilepsy occurring in a mental defective with convulsive and vertiginous seizures. These seizures disappear under treatment with bromide and hypochlorization, but a state of excitation, agitation, takes their place which itself disappears on the recurrence of the ordinary seizures.

3. This article is wholly psychological and does not contain much of interest to the psychiater. WHITE.

NEUROLOGISCHES CENTRALBLATT

(Vol. 23, June 1, 1904. No. 11.)

1. Concerning the Relation Between the Localization of the Convulsions and the Localization of the Anatomical Alterations in Experimental Tetanus. E. SJOVALL.
2. Concerning the Myelinated Fibers in the Cortex of Epileptics, Especially in the Outer Association Zones. T. KAES.
3. Concerning Fatigue Phenomena in Vibration. Preliminary Communication. W. NEUTRA.

1. *Experimental Tetanus.*—The author has previously reported alterations in the nerve cells in tetanus occurring in man. These alterations are by no means consistent, as other writers have reported different findings. Sixteen rabbits were tetanized. In nine the examination was completely negative, while in five the alterations were of different character. The nuclear changes consisted in a more or less diffuse change in the tigroid substance with alteration in the interstitial substance, and often a turgescence of the cell body. It was noted that the cell changes were found in the parts corresponding with the origin of the convulsion, but this was by no means always the case, for no cell changes were found in nine rabbits. The relation is not clear, but the whole process depends upon a physiological basis. If the nerve cells are sufficiently exhausted, changes occur; if not, none are found.

2. *Epilepsy.*—Kaes calls attention to a previous work of his in which he described a layer of association fibers which correspond to Meynert's second and third layer, in contradistinction to Bechterew's observation, who only described one such layer. Kaes found this in three epileptic brains, the patients having died in convulsions. He deduces no conclusions. He also observed that the cortex in epileptics is smaller than in the brain of others. This is different from the findings recently described.

3. *Fatigue.*—Neutra says that Erhard in 1872 used the vibration method as a diagnostic feature. The author, to determine the difference in vibratory sensation, first placed the fork, for instance, on the tibia, and when the vibration could not longer be felt, upon a symmetrical point on the other tibia. At the expiration of a few seconds this could not be felt. The difference in the vibration he called the "fatigue number." In hysterical or neurasthenic patients, should one fork be replaced on the first tibia it will be felt; or if, instead of the fork being placed on the second tibia, it is replaced on the first, it will also be felt. This is not present in normal individuals, and the author considers it a pathological factor, depending upon the fatigue of the individual.

(Vol. 23, June 16, 1904. No. 12.)

1. The True Centres of Motion. A. ADAMKIEWICZ.
2. Results of Examination of Liquor Cerebrospinalis. L. MERZBACHER.
3. A Contribution to the Posterior Regeneration in the Spinal Cord. G. BIKELES.

1. *Centers of Motion.*—If the cortex is removed from a lower animal it will be stupid, but will not have loss of power, but will have loss of

initiative. The author believes that the cerebrum controls only psychic functions, and that the true centers for motion are in the cerebellum. These have a definite center for certain motor functions, and are on the side of the inverted musculature. The musculature of the extremities has three centers. Each anterior and posterior extremity has its own, both anterior and both posterior identical centers, and all of the limbs a common center. The four extremities, therefore, are represented by seven centers.

2. *Liquor Cerebrospinalis.*—The author examined a large number of cases and in the main confirmed the findings of the French authors. A chemical examination did not show anything special. Lymphocytosis was found in tabes and general paresis, but not in diseases not syphilitic. It was also found in six epileptics out of twelve. This is a new finding. All forms of leucocytes were found.

3. *Regeneration in the Spinal Cord.*—Bikeles criticises the findings of Spiller and Frazier, who did not find a regeneration in the intramedullary portion of the posterior roots in an animal which had been operated upon ten months previously. Bikeles himself has found a regeneration, and asks for further information regarding the case of Spiller and Frazier.

(Vol. 23, July 1, 1904. No. 13.)

1. Ramón y Cajal's New Fibril Method. M. v. Lenhossek.
2. A New Flexor Toe Reflex. W. v. Bechterew.
3. Remarks upon Above Contribution. K. Mendel.

1. *New Fibril Method.*—This article is not suited for abstracting.

2 and 3. *New Reflex.*—Bechterew claims that he had demonstrated a new reflex which he called a "tarsophalangeal reflex," this being obtained by striking the dorsal part of the tarsal bone, there being a slight bending of the large toe. K. Mendel subsequently described the same reflex, not knowing anything of the first description.

(Vol. 23, July 16, 1904. No. 14.)

1. Concerning Compensatory Processes in the Human Spinal Cord. A. Pick.
2. Concerning the Cortical Innervation of the Bladder. L. v. Fränkl-Hochwart and A. Fröhlich.
3. Concerning the Association Fibers of the Small Cell Layer of the Cerebellar Cortex. L. Pussep.

1. *Compensatory Processes in the Spinal Cord.*—Pick records a case of infantile cerebral paralysis, in which the whole of one hemisphere is destroyed. The age is not known. It can readily be seen from the article's illustrations that the left half of the spinal cord is much smaller than the right. The posterior horns, however, are much hypertrophied on the affected side. Pick explains this by a compensatory hypertrophy due to the hypoplasia of the adjoining pyramidal tract. The injury must have occurred before the growth of the posterior horns was obtunded.

2. *Cerebral Innervation of the Bladder.*—The authors, after experimentation with lower animals, came to the conclusion that the primary act in the urinary function consisted in a relaxation of the sphincters and not in an overpowering of these muscles. In cutting the n. hypogastric and pudendi, a cortical relaxation may be apparent in the sphincters. These results are not constant, probably because the peripheral bladder innervation is not constant.

3. *Association Fibres in the Cerebellum.*—According to Bechterew, besides the ordinary processes, the small cells of the cerebellum have a collateral process which proceeds vertically to the upper layers. Pussep, by destroying the flocculus, was able to trace these fibers by the Marchi method

Weisenburg (Philadelphia).